REMARKS

1. In section one of the Office Action, Applicant is informed that a new examiner, Tom Stevens, is now presiding over the prosecution of this case from former examiner William Thomson.

2. In section two of the Office Action the new examiner requests a copy of the publication "Modeling Global Macroclimatic Constraints on Ectotherm Energy Budgets" by Grant and Porter, American Zoologist 32: 154-178, 1992 ("Grant et al."). Please find a second copy of this reference enclosed. Applicant would like to note for the record that a first copy of this reference was previously provided (along with copies of all other citations) with the filing of the Information Disclosure Statement in the case on 21 SEP 2001. The original examiner initialed his review of the citation on 30 AUG 2005 suggesting that a copy of the Grant et al. reference should already be present within the file wrapper for this case.

3. The Office Action further requests that Applicant provide any derivative art to the Grant et al. reference. The only derivative art that Applicant is aware of is Porter et al., "Endotherm energetics: from a scalable individual-based model to ecological applications," Aust. J. Zool, p. 125-162, 1994 ("Porter et al."). As with the Grant et al. reference, this reference was cited in the Information Disclosure Statement in the case filed on 21 SEP 2001, and a copy provided at the time. The original examiner initialed his review of the citation on 30 AUG 2005. Nevertheless, and in case this reference is also missing from the file wrapper, Applicant encloses a copy.

4. The Office Action requests that Applicant "state the specific improvements of the subject matter in the claims over the disclosed prior art [Grant et al.] and indicate the specific elements in the claimed subject matter that provide those improvements." The following lists these improvements by independent claim (i.e., claims 1, 36, 70, 94, 95, and 96).

a. Claim 1. Claim 1 specifies that "the microclimate model comprise[s] a solar radiation model to enable the calculation of an input of solar radiation when the sun is above the horizon and when the sun is below the horizon." Neither the Grant et al. reference nor the Porter et al. reference, disclose a microclimate model which "comprises a solar radiation model," much less one that, "enable[s] the calculation of an input of solar radiation when the sun is above the horizon and when the sun is below the horizon." Porter et al. does not even discuss a microclimate model. In Grant et al., an earlier version of a microclimate model is disclosed, but it has no solar radiation model incorporated therein. Incorporation of an improved solar radiation model into a still further improved microclimate model is an innovation of the present invention and distinguishes the claimed invention from both references. (See p. 12, L 21-28; p. 13, L 4-5).

b. Claims 36 and 70. Claims 36 and 70 similarly distinguish the invention from both the Grant et al. and Porter et al. references. In each of these claims similar steps in running the animal model of the present invention are claimed. In particular, "calculating the amount of discretionary energy available to the animal...performing the mass balance analysis comprising running a gut model coupled to a lung model." Neither Grant et al. nor Porter et al. disclose "running a gut model coupled to a lung model" as claimed in the present invention. (see p. 18 L 26-27; gut model 560 p. 33-p.39; lung model 570 p. 40-45). Incorporation of gut and lung models in performing a mass balance analysis is an improvement of the present invention over prior versions of an animal model disclosed in the Grant et al. (for ectotherms only, therefore not containing a mass balance analysis at all) and Porter et al. references.

c. Claim 94. Neither the Grant et al. nor the Porter et al. references disclose "providing an at least one server computer in communication with a computer network" in order to perform the steps as claimed. The system of the present invention is an improvement over both of the prior references because it allows users to access and process large amounts of data using minimal RAM memory and disc space on a computer. (See Fig. 8 & 10; p. 53, L12-17)

d. Claims 95 and 96. Neither the Grant et al. nor the Porter et al. references disclose the use of a "graphical user interface" (GUI) as claimed in these claims. The GUI provides user the advantage of being able to modify inputs to the model. (see Figs. 8 & 10; p.53 L19 - p.54 L5) Also, as per claim 96 particularly, neither reference discloses "displaying output from the server to the user via the graphical user interface." This is a particularly important improvement in that it enables users to generate landscape type outputs (e.g., usable images) not previously possible without the use of other separate programs. (see p. 56 L7-18; Fig. 8 step 1090 and 2000).

Conclusion

Neither Grant et al. nor Porter et al. discloses the present invention as claimed in the independent claims outlined above. By the above, Applicant has "state[d] the specific improvements of the subject matter in the claims over the disclosed prior art and [has] indicate[d] the specific elements in the claimed subject matter that provide those improvements," as requested by the new examiner. Applicant has further provided reference to a sole derivative work as requested. Second copies of both references are herein enclosed. This reply is made with candor and good faith under 37 CFR 1.56 as was Applicant's submissions by way of the Information Disclosure Statements originally filed in this case.

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Patricia Smith King
Registration No. 41899
King Research & Law
10 E. Doty Street, Ste. 800
Madison, WI 53703
1-608-231-2988
Customer No. 22224